Subject: Re: Measuring and Adjusting CPU utilization
Posted by Pradeep Padala on Tue, 06 Jun 2006 23:27:32 GMT
View Forum Message <> Reply to Message

Thanks for the explanation, but I DID use the --cpulimit parameter.

I set the limit to 1000 units, I run a while(1) loop, and I see a 100%
loadavg on the host node. Shouldn't it be somewhere around 10% ?

Pradeep

On 6/6/06, Kir Kolyshkin <kir@openvz.org> wrote:
>
> Looks like you misunderstand the concept of cpuunits. cpuunits is not a
> hard limit, but just a suggestion, and a CPU time is shared
> proportionally to the values given. So, if you will have 9 VEs and the
> host system with cpuunits set to 1000 for all of them, and run the loop
> in all of them, each VE will use 10% of the CPU time.
>
> In case you will stop the loop running in 5 VEs so there will be 4 such
> VEs (plus the host system) left, each of them will use 20% of the CPU.
> So, all the CPU time is distributed between VEs which will need it,
> according with their proportional cpuunits.
>
> More to say, the concept of "total CPU units" is purely fiction, and is
> here just for the convenience. People do want to set CPU units is terms
> of processor's megaherts, and this is what cpuunits does. But in fact it
> is not a megaherts but just a relative weights. I.e. all the cpuunits
> values are relative to each other, it doesn't matter what the actual
> numbers are -- what matters is a number given to a VE in relation to the
> sum of all cpuweights (which is expressed as "total CPU units" just for
> the convenience).
>
> So, cpuunits, if you do not oversell them, are a CPU guarantee, not a
> limit. If you want CPU limit -- use cpulimit parameter.
>
> Pradeep Padala wrote:
>
> > Hi,
> >
> > I am trying to measure the CPU utlilization of the VZ containers, and
> > change the cpu share dynamically. I have poured over most of the
> > documentation, and looked at the code as well, and it seems like
> > there's no utility that can directly show the current CPU utilization
> > of a container (some thing like 30% of CPU). A search on the user list
> > got me a message, where someone suggested using loadavg. However, It
> > seems like the loadavg is not showing the proper utilization (or
> > showing the total CPU utilization). This is what I am doing.

> >
> > I setup a container with 1000 units limit (total CPU units: ~10000). I
> > wrote a small do {; }while(1); loop and ran it in the container, now I
> > do cat /proc/loadavg in both the container and on the host node.
> > Since, the container is only using 1000 units, I should see something
> > like 100% loadavg in the container, and 10% loadavg in the hostnode.
> > But, I see 100% at both places. Am I doing something wrong? How do I
> > get the current cpu utilization of a container?
> >
> > Thanks,
> > --
> > Pradeep Padala
> > http://ppadala.blogspot.com
> >
> > -- ------------
> >
--
Pradeep Padala
http://ppadala.blogspot.com